

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

Claim 1 (currently amended): An endodontic fiber suitable for the local delivery and sustained release of one or more medicaments incorporated therein to an intracanal treatment site, comprising a ~~rigid~~ polymer vehicle having incorporated therein one or more medicaments, wherein said endodontic fiber is capable of being positioned deep within a root canal to enable said one or more medicaments to act locally at a site of deep bacterial infection and wherein said endodontic fiber comprises a dose of said one or more medicaments of about 2.0 mg to about 5.0 mg per 10 mm of fiber ~~the fiber has a size and shape suitable for placement in a root canal.~~

Claim 2 (previously presented): The endodontic fiber of Claim 1, wherein the medicament is selected from the group consisting of antibiotics, anti-inflammatory agents, antimicrobial agents, immune reagents, immunomodulatory agents, and combinations thereof.

Claim 3 (previously presented): The endodontic fiber of Claim 2, wherein the medicament is an antibiotic selected from the group consisting of clindamycin, tetracycline and combinations thereof.

Claim 4 (previously presented): The endodontic fiber of Claim 1, wherein the polymer vehicle is an ethylene vinyl acetate copolymer having a diameter of from about 0.1 mm to about 2.0 mm and the medicament is clindamycin incorporated at a dose of about 2.0 mg to about 5.0 mg per 10 mm of fiber.

Claim 5 (original): The endodontic fiber of Claim 2, wherein the medicament comprises a combination of an antibiotic and an anti-inflammatory agent.

Claim 6 (currently amended): A modified periodontal fiber suitable for the delivery and sustained release of one or more medicaments medicament incorporated therein to an intracanal treatment site, comprising a ~~rigid~~ polymer vehicle having incorporated therein one or more medicaments, wherein the polymer is treated to decrease its surface tackiness, wherein said endodontic fiber is capable of being positioned deep within a root canal to enable said one or more medicaments to act locally at a site of deep bacterial infection, and wherein said endodontic fiber comprises a dose of said one or more medicaments of about 2.0 mg to about 5.0 mg per 10 mm of fiber and wherein the fiber has a size and shape suitable for placement in a root canal.

Claim 7 (currently amended): A method for the local delivery and sustained release of one or more medicaments ~~a medicament~~ to an intracanal treatment site comprising:

(a) obtaining an endodontic fiber suitable for intracanal use having one or more medicaments incorporated therein, wherein said endodontic fiber comprises a ~~rigid~~ polymer composition;

(b) positioning the fiber of (a) in the root canal such that the fiber is in direct contact with the treatment site; and

(c) maintaining the fiber at the treatment site, wherein the one or medicaments are medicament is delivered to the treatment site at a controlled rate; wherein said endodontic fiber is capable of being positioned deep within a root canal to enable said one or more medicaments to act locally at a site of deep bacterial infection, and wherein said endodontic fiber comprises a dose of said one or more medicaments of about 2.0 mg to about 5.0 mg per 10 mm of fiber.

Claim 8 (original): The method of Claim 7, wherein the endodontic fiber is a modified periodontal fiber or an intracanal fiber.

Claim 9 (currently amended): A method of treating an endodontic bacterial infection comprising the steps of:

(a) obtaining an endodontic fiber suitable for intracanal use having one or more medicaments incorporated therein, wherein said endodontic fiber comprises a ~~rigid~~ polymer composition;

(b) positioning the fiber of (a) into a root canal such that the fiber is in direct contact with a treatment site in the root canal; and

(c) maintaining the fiber at the treatment site, wherein the one or more medicaments are delivered to the treatment site at a controlled rate;
wherein said endodontic fiber is capable of being positioned deep within a root canal to enable said one or more medicaments to act locally at a site of deep bacterial infection, and wherein said endodontic fiber comprises a dose of said one or more medicaments of about 2.0 mg to about 5.0 mg per 10 mm of fiber.

Claim 10 (original): The method of Claim 9, wherein the endodontic fiber is a modified periodontal fiber or an intracanal fiber.

Claim 11 (currently amended): A method of disinfecting a root canal receiving endodontic treatment comprising:

(a) obtaining an endodontic fiber suitable for intracanal use having one or more medicaments incorporated therein, wherein said endodontic fiber comprises a ~~rigid~~ polymer composition;

(b) inserting the fiber of (a) into a debrided and irrigated root canal such that the fiber is in direct contact with a treatment site in the root canal; and

(c) maintaining the fiber at the treatment site, wherein the one or more medicaments are medicament is administered to the treatment site at a controlled rate;
wherein said endodontic fiber is capable of being positioned deep within a root canal to enable said one or more medicaments to act locally at a site of deep bacterial infection, and wherein said endodontic fiber comprises a dose of said one or more medicaments of about 2.0 mg to about 5.0 mg per 10 mm of fiber.

Claim 12 (original): The method of Claim 11, wherein the endodontic fiber is a modified periodontal fiber or an intracanal fiber.

Claim 13 (currently amended): A method of reducing inflammation in periapical tissue of a tooth undergoing endodontic treatment, comprising:

- (a) obtaining an endodontic fiber suitable for intracanal use having incorporated therein an anti-inflammatory agent, wherein said endodontic fiber comprises a ~~rigid~~ polymer composition;
- (b) positioning the fiber of (a) into a treatment site in a debrided and irrigated root canal such that the fiber is in direct contact with an inflamed tissue in the root canal; and
- (c) maintaining the endodontic fiber at the treatment site, wherein the anti-inflammatory agent is delivered to the site of inflammation at a controlled rate;
wherein said endodontic fiber is capable of being positioned deep within a root canal to enable said one or more medicaments to act locally at a site of deep bacterial infection, and wherein said endodontic fiber comprises a dose of said one or more medicaments of about 2.0 mg to about 5.0 mg per 10 mm of fiber.

Claim 14 (original): The method of Claim 13, wherein the endodontic fiber is a modified periodontal fiber or an intracanal fiber.

Claim 15 (previously presented): The endodontic fiber of claim 1, wherein said polymer vehicle comprises an ethylene vinyl acetate copolymer comprising less than about 20% vinyl acetate by weight.

Claim 16 (previously presented): The endodontic fiber according to Claim 15, comprising less than about 15% vinyl acetate by weight.

Claim 17 (previously presented): The endodontic fiber according to Claim 15, comprising less than about 10% vinyl acetate by weight.

Claim 18 (previously presented): The endodontic fiber according to Claim 15, comprising about 9.3% vinyl acetate by weight.

Claim 19 (previously presented): The endodontic fiber according to Claim 15, having a diameter of less than about 0.5 mm.

Claim 20 (previously presented): The endodontic fiber according to Claim 18, having a diameter of less than about 0.5 mm and one or more medicament incorporated therein.

Claim 21 (previously presented): The endodontic fiber of claim 1, wherein said fiber is impregnated with said one or more medicaments.

Claim 22 (previously presented): The modified periodontal fiber of claim 6, wherein said fiber is impregnated with said one or more medicaments.

Claim 23 (previously presented): The method of claim 7, wherein said fiber is impregnated with said one or more medicaments.

Claim 24 (previously presented): The method of claim 9, wherein said fiber is impregnated with said one or more medicaments.

Claim 25 (previously presented): The method of claim 11, wherein said fiber is impregnated with said one or more medicaments.

Claim 26 (previously presented): The method of claim 13, wherein said fiber is impregnated with said one or more medicaments.

Claim 27 (previously presented): The endodontic fiber of claim 15, wherein said fiber is impregnated with said one or more medicaments.

Claim 28 (new): The endodontic fiber of claim 1, wherein said fiber has a rigidity similar to traditional gutta percha points.

Claim 29 (new): The modified periodontal fiber of claim 6, wherein said fiber has a rigidity similar to traditional gutta percha points.

Claim 30 (new): The method of claim 7, wherein said fiber has a rigidity similar to traditional gutta percha points.

Claim 31 (new): The method of claim 9, wherein said fiber has a rigidity similar to traditional gutta percha points.

Claim 32 (new): The method of claim 11, wherein said fiber has a rigidity similar to traditional gutta percha points.

Claim 33 (new): The method of claim 13, wherein said fiber has a rigidity similar to traditional gutta percha points.

Claim 34 (new): The endodontic fiber of claim 15, wherein said fiber has a rigidity similar to traditional gutta percha points.